

**Atty Docket: 4081-01701**  
**(09/660,450US1)**

**Patent**

## REMARKS/ARGUMENTS

### *Status of Claims*

Claims 1-2, 5, 29-31, and 35-43 have been amended.

Claims 10-18 and 20-28 have previously been canceled.

As such, claims 1-9, 19, and 29-43 are currently pending in this application.

Applicants hereby request further examination and reconsideration of the presently claimed application.

### *New Matter Rejections*

The amendment filed on April 6, 2005 is objected to under 35 USC §132(a) as introducing new matter to the specification. Likewise, claims 1-9, 19, and 29-43 stand rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement and under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse these rejections and respectfully submit that the subject matter added to the claims and the specification via the April 6, 2005 amendment is not new matter and is fully supported by the specification as explained in detail therein. However, in an effort to substantively advance prosecution, Applicants respond to the Examiner's underlined and enumerated objections 1-4 on pages 2-3 of the office action as follows:

- (1) "mixture of linear and branched dimers" – The first sentence of the amendment to the specification now discloses a dimerization product comprising linear internal dimers and methyl branched dimers and is clearly supported by headings in second to last and last columns of Table 1, respectively. Claims 1, 2, 29, 35, and 40-43 have been amended accordingly.

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(2) “from about 30 to about 85 weight percent of which are linear alpha-olefin dimers”

– The second sentence of the amendment to the specification now discloses that the linear internal dimers may comprise from about 27 to about 81 weight percent of the dimers present in the dimerization product, which is literally supported on the lower end by Example 6 and on the upper end by Example 2 in the second to last column in Table 1. Claims 1, 35, 40, and 43 have been amended accordingly.

(3) “less than about 80 weight percent olefinic starting material” – Based upon the Examiner’s comments at the bottom of page 2 and at the top of page 4 of the office action, it appears that the Examiner is objecting to the language because a lower limit has not been expressly recited, and therefore arguably may include zero. Thus, the third sentence of the amendment to the specification now discloses that the dimerization product may comprise from about 18.5 to about 80 weight percent unreacted monomer. The lower limit of 18.5 is literally supported by Example 24 in Table 1, and the upper limit of 80 is supported as set forth on pages 10 and 11 of the April 6, 2005 response to office action. Claims 1, 31, 36, and 43 have been amended accordingly.

(4) “the dimers comprise less than about 5 weight percent vinylidene or tri-substituted olefins” – The Examiner notes that original claim 5 discloses said by-products comprise less than about 5 weight percent vinylidene or tri-substituted olefins. In order to clarify this issue, the fourth sentence of the amendment to the specification now discloses that the dimerization product may comprise less than about five weight percent vinylidene or tri-substituted olefins, which is clearly supported by page 5, lines 3-7 stating that other by-products such as vinylidenes or tri-substituted olefins will comprise less than about five percent of the reaction product. Claims 5, 30, and 36 have been amended accordingly.

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Applicants respectfully submit that the foregoing amendments to the specification and claims overcome the 35 USC §132(a) and §112 rejections noted by the Examiner.

***Claim Rejections – 35 USC §102 and §103***

Claims 1-9, 19, and 29-43 stand rejected under 35 USC §102(b) as anticipated by, or in the alternative, under 35 USC §103(a) as obvious over *De Wet* (WO 99/55646). Applicants respectfully submit that *De Wet* does not establish a *prima facie* case of anticipation or obviousness as to the pending claims. According to MPEP § 2131, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Likewise, MPEP § 2142 requires that “the prior art reference must teach or suggest all the claim limitations” in order to establish a *prima facie* case of obviousness. Applicants respectfully submit that *De Wet* does not teach or suggest each and every limitation set forth in the pending claims, and therefore does not anticipate or make obvious the pending claims.

Specifically, *De Wet* does not teach or suggest a dimerization product comprising “dimers, from about 27 to about 81 weight percent of which are linear internal dimers” as recited in independent claims 1 and 43 or “less than about five weight percent vinylidene or tri-substituted olefins” as recited in independent claims 31 and 36. Applicants note that the Examiner relies upon the abstract and page 5, lines 1-5 and 23-25 as disclosing a product containing at most alpha-olefins which may have from C<sub>2</sub>-C<sub>30</sub> carbons such as 1-octene and 1-nonene. However, Applicants respectfully point out that such product is a Fischer-Tropsch derived olefinic feedstream to a dimerization process and is not a description of the content of the dimerization product produced by the dimerization process, as is the subject of Applicants’ claims. In other words, the portions of text cited by the Examiner do not relate to a product of a dimerization process, as do the pending

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claims. Furthermore, such text, regardless of the product being described, does not teach or suggest the specific limitations recited in the pending independent claims as set forth above.

As for the properties of the dimerization product itself, the Examiner relies upon page 6, lines 9-13, which discloses that the dimers may be represented by the formula:  $R'R''C=CH_2$ . Applicants respectfully direct the Examiner's attention to the fact that  $R'$  and  $R''$  are attached to the same carbon atom. Thus, the dimers disclosed by *De Wet* are branched dimers, and more specifically dimers having the formula  $R'R''C=CH_2$  are vinylidenes. Notably, *De Wet* does not teach or suggest linear internal dimers. Furthermore, *De Wet* does not teach or suggest a dimerization product comprising "dimers, from about 27 to about 81 weight percent of which are linear internal dimers" as recited in independent claims 1 and 43 or "less than about five weight percent vinylidene or tri-substituted olefins" as recited in independent claims 31 and 36. Given that *De Wet* does not teach or suggest each and every element of the pending claims, Applicants respectfully submit that the pending claims are patentable over *De Wet*.

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### CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections and objections is respectfully requested by Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated June 8, 2005 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefor.


If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

CONLEY ROSE, P.C.

Date: \_\_\_\_\_

**9-8-05**

  
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